

Alphabetical Listing of ECES Level 3 Elements

			Phases				2nd	3rd	Environmental Management
Ph1	Ph2	Ph3	Ph4	Ph5	Ph6	Ph8	Lvl	Lvl	
Assess.	Studies	Design	Cap. Const.	O&M	SLMT	Prog. Mgmt/Infra.			ENVIRONMENTAL COST ELEMENT STRUCTURE
		3	4				.03	.20	Environmental Action Implementation Plan
	2	3	4	5			.02	.07	A/E Support
			4	5	6		.13	.05	Aboveground Vault
			4	5	6		.05	.11	Access Control Facility
			4	5	6		.05	.40	Access Control Facility
1	2	3	4	5	6		.05	.08	Access Roads
			4	5			.24	.16	Activated Alumina (Adsorption/Absorption)
			4	5			.22	.01	Activated Sludge
			4	5			.26	.02	Advanced Electrical Reactor
			4	5			.26	.01	Aeration
			4	5			.26	.03	Agglomeration
1	2	3	4	5	6		.07	.08	Air Monitoring and Sampling
			4	5			.25	.02	Air Sparging
			4	5			.26	.04	Air Stripping
1	2	3	4	5	6		.08	.01	Air/Gas Sample Analysis
			4	5			.34	.11	Alkali Bed Reactor
			4	5			.22	.11	Anaerobic Sludge Digestion
			4	5	6		.17	.13	Aquatic Barrier
1	2	3	4	5	6		.05	.09	Arterial Roads/Divided Highways
			4				.15	.04	Asbestos Abatement
			4	5	6		.19	.06	Asphalt/Concrete Layer
			4	5			.30	.01	Asphalt-Base Encapsulation
			4	5			.29	.01	Asphalt-Based Encapsulation
1	2	3	4	5	6		.02	.12	Asset Recovery
			4	5			.21	.10	Baroball
			4	5			.24	.02	Base-Catalyzed Decomposition Process
	2	3					.10	.05	Bench Test
			4	5	6		.17	.02	Berms
1	2	3	4	5	6		.08	.10	Bioaccumulation Studies
1	2	3	4	5	6		.08	.09	Bioassay Sample Analysis
			4	5			.34	.01	Biofiltration
			4	5			.21	.01	Biological Barriers
			4	5			.22	.10	Biological Lagoons
			4	5			.22	.03	Biopile (Bioheap, Biomound)
			4	5			.25	.21	Bioslurping
1	2	3	4	5	6		.08	.08	Biota Sample Analysis
			4	5			.21	.03	Bioventing
			4	5			.25	.19	Blast Enhanced Fracturing
			4				.14	.03	Blast Mats
			4				.14	.04	Blast Shields
			4	5	6		.13	.17	Bore - Hole Disposal
1	2	3	4				.05	.07	Borrow Pit/Haul Roads
1	2	3	4	5	6		.05	.13	Bridges
			4				.14	.02	Brush Clearing with OE
			4				.14	.13	Bunkers (Temporary)
			4	5			.30	.02	Calcination
			4	5			.34	.05	Catalytic Oxidation
1	2	3	4	5			.32	.10	Certification & Shipping
			4	5	6		.17	.06	Channels/Waterways/Ditches
			4	5			.26	.05	Chelation
1	2	3	4	5	6		.03	.02	Chemical Data Acquisition Plan

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Assess.	Studies	Design	Cap. Const.	O&M	SLMT	Prog. Mgmt/Infra.			ENVIRONMENTAL COST ELEMENT STRUCTURE
			4	5			.24	.18	Chemical Extraction (Solvent/Acid/Alkaline Extraction)
			4	5			.24	.03	Chemical Hydrolysis
			4	5			.24	.08	Chemical Oxidation / Reduction
			4	5			.24	.04	Chlorination
			4	5	6		.17	.07	Chutes or Flumes
1	2	3	4	5	6		.05	.52	Clean Site Work
1	2	3	4	5	6		.05	.02	Cleanup/Landscaping/Revegetation
1	2	3	4				.05	.03	Clear and Grub
			4	5			.24	.15	Coagulation / Flocculation / Precipitation
			4	5	6		.25	.15	Coating
1	2	3	4	5	6		.09	.12	Combined Data Management
	2						.04	.18	Combined Feasibility Document
1	2	3	4	5	6		.04	.15	Combined Report
1	2	3	4	5	6		.09	.11	Combined Sample Management
1	2	3	4	5	6		.03	.17	Combined Workplan
			4	5			.21	.04	Cometabolic Treatment
			4	5			.22	.04	Cometabolic Treatment
1	2	3	4	5	6		.05	.29	Communications
1	2	3	4	5	6		.02	.02	Community Relations
1	2	3	4	5	6		.03	.07	Community Relations Plan
			4	5			.26	.07	Compaction/Volume Reduction
			4	5			.22	.12	Composting
1	2	3	4	5	6		.05	.35	Compressed Air/Nitrogen
1	2	3	4	5	6		.05	.53	Concrete
			4	5			.34	.13	Condensation
1	2	3	4	5	6	8	.02	.13	Configuration Management
			4	5	6		.13	.10	Confined Disposal Facilities (CDFs)
			4	5			.21	.05	Constructed Wetlands
			4	5	6		.12	.05	Contact Handled Storage
1	2	3	4	5			.32	.15	Container Handling
1	2	3	4	5	6		.07	.14	Contaminated Building Survey/Structures/Equipment Samples
			4	5			.19	.01	Contaminated Soil Collection (Excavation)
1	2	3	4	5	6		.02	.15	Contract Closeout
	2	3	4				.02	.08	Contractor Construction Management
			4	5	6		.12	.02	Conventional Storage/Warehouses
1	2	3	4	5	6		.05	.64	Conveying Systems
1	2	3	4	5	6		.09	.02	Coordinate with Sample MGT Personnel/Regulators
1	2	3	4	5	6	8	.03	.22	Corrective Action Plan Reporting
			4	5			.11	.01	Covered Treatment Train Technologies Unit
			4	5			.26	.42	Cryogenics
			4	5			.25	.04	Cryogenics (Frozen Soil Barrier)
	2	3					.10	.02	Data Collection
1	2	3	4	5			.03	.06	Data Management Plan
1	2	3	4	5	6		.09	.08	Data Reduction, Tabulation and Evaluation
			4	5			.09	.13	Data Review for Effectiveness
1	2	3	4	5	6		.09	.07	Data Usability Evaluation/Field QA/QC
			4	5			.31	.02	Deactivation
			4	5			.26	.09	Decant/Phase Separation
1	2	3					.03	.15	Decommissioning Plan
		3	4				.04	.12	Decontamination/Dismantlement Project Designs
			4	5	6		.13	.15	Deep Well Injection

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			Phases				2nd	3rd	Environmental Management
Ph1	Ph2	Ph3	Ph4	Ph5	Ph6	Ph8	Lvl	Lvl	
Assess.	Studies	Design	Cap. Const.	O&M	SLMT	Prog. Mgmt/Infra.			ENVIRONMENTAL COST ELEMENT STRUCTURE
			4	5			.24	.05	Dehalogenation
1	2	3	4	5	6		.05	.36	Demobilization
			4				.14	.01	Demolition for OE Removal
1	2	3	4	5	6		.09	.05	Derived Waste Disposal (Gas, Liquid, Solid)
	2	3					.10	.09	Design, Procure, Test New Procedures/Specifications
	2	3					.10	.04	Design/Procure New Tools and Equipment
	2						.04	.06	Develop Environmental Alternatives
	2	3					.10	.03	Develop Treatability Workplan
			4	5	6		.05	.10	Diesel Generator
			4	5	6		.05	.39	Diesel Generator
			4				.25	.20	Directional Wells (Enhancement)
			4	5			.33	.09	Discharge to POTW
1	2	3	4	5			.05	.04	Dismantling and Demolition
			4	5			.31	.12	Dismantling and Removal of Biological and Thermal Shield
			4	5			.31	.09	Dismantling and Removal of Contaminated Equipment /Material
			4	5			.31	.11	Dismantling and Removal of Primary and Auxiliary Systems
			4	5			.31	.14	Dismantling of In-Cell Equipment
			4	5			.31	.19	Dismantling of Intermediate Fuel Storage Facility
			4	5			.31	.18	Dismantling of Temporary Fuel Storage Facility
			4	5			.31	.10	Dismantling Operations on Reactor Vessel & Internals
			4	5			.31	.21	Dismantling or Demolition of Other Facilities
			4	5	6		.13	.03	Disposal Facility Front-End - High/Remote Hazard
			4	5	6		.13	.02	Disposal Facility Front-End - Low/Moderate Hazard
			4	5	6		.13	.18	Disposal Fees and Taxes
			4	5			.26	.10	Dissolved Air Flootation
			4	5			.26	.11	Distillation
1	2	3	4	5	6		.09	.10	Document Data Evaluation
	2						.04	.10	Document FS (CMS)
	2	3					.10	.11	Document Treatability Study
1	2	3	4	5	6		.05	.58	Doors and Windows
			4	5			.25	.23	Draw-Down Pumping
			4	5	6		.17	.01	Dredging/Excavating
			4				.15	.01	Drum Removal
			4	5			.25	.22	Dual Phase Extraction (Multi-Phase)
			4	5			.26	.12	E-Beam
1	2	3	4	5	6		.07	.07	Ecological Investigation
1	2						.04	.03	Ecological Risk Assessment
1	2	3	4	5	6		.07	.12	Ecological Sampling
1	2	3	4	5	6		.05	.66	Electrical
			4	5			.26	.13	Electrochemical Oxidation
			4	5			.25	.16	Electrokinetics
			4	5			.26	.15	Electrolysis
1	2	3	4				.03	.13	Emergency Response Plans/Report/Approval
			4	5			.30	.10	Emulsified Asphalt
1	2						.02	.11	Enforcement
			4	5	6		.19	.08	Engineered Barrier
			4	5	6		.13	.11	Engineered Disposal
	2	3					.04	.16	Engineering Evaluation/Cost Analysis
			4	5			.21	.06	Enhanced Bioremediation
1	2						.04	.05	Environmental Investigation Report

			Phases				2nd	3rd	Environmental Management
Ph1	Ph2	Ph3	Ph4	Ph5	Ph6	Ph8	Lvl	Lvl	
Assess.	Studies	Design	Cap. Const.	O&M	SLMT	Prog. Mgmt/Infra.			ENVIRONMENTAL COST ELEMENT STRUCTURE
			4	5			.11	.10	Environmental Management High Hazard Functional Area (e.g., ALLW, MALLW, TRU, Spent Fuel, & CWM)
			4	5			.11	.07	Environmental Management High Hazard/Remote Treatment Front-End
			4	5			.11	.08	Environmental Management Low Hazard Functional Area (e.g., Hazardous/Toxic)
			4	5			.11	.06	Environmental Management Low/Moderate Hazard Treatment Front-End
			4	5			.11	.09	Environmental Management Moderate Hazard Functional Area (e.g., Hazardous/Toxic, LLW & MLLW)
		3	4				.04	.11	Environmental Management Project Design
			4	5			.11	.11	Environmental Management Remote Functional Area (e.g., ALLW, MALLW, TRU, Spent Fuel, & CWM)
1	2	3	4				.03	.14	Environmental Workplans
			4	5			.26	.16	Equalization
1	2	3	4	5	6		.05	.61	Equipment
			4	5	6		.17	.12	Erosion Control
	2						.04	.08	Evaluate Alternatives
			4	5			.26	.17	Evaporation
			4				.14	.08	Excavate by Hand 0' - 2' Depth
			4				.14	.09	Excavate with Heavy Equipment > 2' Depth
1	2	3	4				.05	.05	Excavation and Earthwork
			4	5	6		.18	.01	Extraction Wells
			4	5			.12	.08	Facilities and Sheds for Temporary Storage
			4	5			.31	.16	Facility (Controlled Area) Hardening, Isolation or Entombment
			4				.11	.13	Facility Commissioning Activities
		3	4				.04	.13	Facility Design
1	2	3	4	5	6	8	.06	.01	Facility Transition
1	2	3	4	5	6		.05	.14	Fencing
	2	3					.10	.07	Field Test
			4	5			.26	.19	Filter Presses
1	2	3	4	5	6		.05	.59	Finishes
			4	5			.34	.12	Flameless Thermal Oxidation
			4	5			.34	.14	Flaring
			4	5	6		.17	.03	Floodwalls
			4	5			.24	.17	Forager Sponge (Adsorption/Absorption)
			4	5			.25	.05	Fracturing (Hydrofracturing)
			4	5			.25	.18	Fracturing (Pneumatic)
			4	5			.26	.21	Freeze Crystallization
1	2	3	4	5	6		.05	.21	Fuel Line Distribution
1	2	3	4	5	6		.05	.22	Fuel Storage Tanks
			4	5	6		.16	.04	Fugitive Dust/Vapor/Gas Emission Control
			4	5			.11	.05	Full-Scale Environmental Management Plant/Facility
			4	5			.22	.13	Fungal Biodegradation (White Rot Fungus)
1	2	3	4	5	6		.05	.62	Furnishings
1	2	3	4	5	6		.05	.20	Gas Distribution
1	2	3	4	5	6		.08	.05	Gas Waste Sample Analysis
			4	5	6		.16	.03	Gas/Vapor Collection at Lagoon Cover
			4	5	6		.16	.01	Gas/Vapor Collection Trench System
			4	5	6		.16	.02	Gas/Vapor Collection Well System
1	2	3	4	5	6		.05	.51	General Requirements
			4	5			.22	.05	Genetically Engineered Organism
			4	5	6		.13	.13	Geologic Disposal

			Phases				2nd	3rd	Environmental Management
Ph1	Ph2	Ph3	Ph4	Ph5	Ph6	Ph8	Lvl	Lvl	
Assess.	Studies	Design	Cap. Const.	O&M	SLMT	Prog. Mgmt/Infra.			ENVIRONMENTAL COST ELEMENT STRUCTURE
1	2	3	4	5	6		.07	.06	Geophysical/Geotechnical Investigation
			4	5			.24	.01	Glycolate/ Alkali Metal/Polyethylene Glycol (A/PEG)
						8	.01	.04	Government - Personnel Resources
						8	.01	.06	Government - Program Infrastructure
						8	.01	.05	Government - Program Support
	2	3	4				.02	.09	Government Construction Management
			4	5			.34	.10	Granular Activated Carbon Adsorption Gas/Vapor
			4	5			.26	.23	Granular Activated Carbon Adsorption- Liquid
			4	5			.26	.41	Gravity Separation
1	2	3	4	5	6		.08	.02	Groundwater Sample Analysis
1	2	3	4	5	6		.07	.09	Groundwater Sampling/Monitoring
			4	5	6		.18	.05	Grout Curtain
			4	5			.29	.02	Grout Injection
1	2						.04	.01	Hazardous, Toxic, and Radioactivity Ranking System (HRS)
1	2	3	4	5		8	.03	.04	Health and Safety Plan
1	2	3	4	5	6		.05	.23	Heating/Cooling Distribution System
			4	5			.26	.24	Heavy Media Separation
			4	5			.34	.02	High Energy Corona
			4	5			.26	.25	High Pressure Aqueous Destruction
			4	5			.27	.05	High Temperature Thermal Desorption
			4	5			.28	.01	High Temperature Thermal Desorption
1	2	3	4	5	6		.07	.17	Historical/Cultural/Archeological Investigation
			4	5			.31	.04	Hot Cell Equipment Modification
			4	5			.28	.15	Hot Gas Decontamination
1	2						.04	.02	Human Health Risk Assessment
			4	5			.24	.06	Hydrogen reduction
1	2	3	4	5	6		.07	.04	Hydrogeological Investigations - Groundwater
1	2	3	4	5	6		.07	.05	Hydrogeological Investigations - Surface Water
1	2	3	4	5	6		.09	.03	Implement EPA-Approved Laboratory QA Program
1	2	3	4	5			.03	.12	Implementation Plans
			4	5	6		.05	.43	Important to Safety Switch Gear Building
			4	5			.29	.05	In Situ Pipe Grouting
			4	5			.29	.04	In Situ Vittrification
			4	5			.28	.02	Incineration
			4	5	6		.02	.10	Independent Contractor Verification of Cleanup or Reuse
1	2	3	4	5	6	8	.06	.03	Indoor Surveillance and Maintenance
			4	5			.20	.01	Industrial Vacuuming
1	2	3	4	5	6		.02	.18	Information Management
			4	5	6		.18	.02	Injection Wells
1	2	3	4	5	6	8	.02	.04	Institutional Controls
			4	5	6		.13	.12	Intermediate Depth Disposal (Burial Ground/Trench/Pits)
			4	5			.34	.09	Internal Combustion Engine
			4	5			.25	.01	In-Well Air Stripping/Circulating Wells
			4	5			.24	.07	Ion Exchange
			4	5	6		.17	.10	Lagoons/Basins/Tanks
			4	5			.22	.06	Land Farming
			4	5			.21	.07	Land Treatment
			4	5	6		.13	.04	Landfill
			4	5	6		.19	.07	Landfill Cap Enhancements
			4	5			.25	.06	Lasagna Process
			4	5			.25	.07	Laser (Cutting)

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			Phases				2nd	3rd	Environmental Management
Ph1	Ph2	Ph3	Ph4	Ph5	Ph6	Ph8	Lvl	Lvl	
Assess.	Studies	Design	Cap. Const.	O&M	SLMT	Prog. Mgmt/Infra			ENVIRONMENTAL COST ELEMENT STRUCTURE
			4	5			.25	.08	Laser (Surface Decontamination)
			4	5	6		.17	.04	Levees/Dams/Dike
1	2	3	4	5	6		.05	.30	Lighting
			4	5			.26	.26	Lignin Adsorption / Sorptive Clays
1	2	3	4	5	6		.08	.06	Liquid Material/Waste Sampling
	2	3					.10	.01	Literature Search
1	2	3	4	5	6		.02	.19	Litigation Support
1	2	3	4	5			.05	.06	Load and Haul
			4	5			.27	.07	Low Temperature Thermal Desorption
			4	5			.28	.03	Low Temperature Thermal Desorption
			4	5			.26	.27	Magnetic Separation
1	2	3	4	5		8	.03	.09	Management Plan
1	2	3	4	5	6		.05	.54	Masonry
			4	5	6		.03	.23	Material Disposition Plan
1	2	3	4	5	6		.07	.13	Material/Waste Sampling
1	2	3	4	5	6		.05	.65	Mechanical
			4	5			.26	.20	Media Filtration
			4	5			.26	.45	Membrane Pervaporation
			4	5			.34	.04	Membrane Separation
			4	5			.26	.28	Membrane Separation-Electrodialysis
1	2	3	4	5	6		.05	.55	Metals
1	2	3	4	5	6		.07	.02	Meteorological Monitoring
			4	5	6		.12	.07	Mixed Waste Storage
1	2	3	4	5	6		.08	.11	Mobile - Air/Gas Sample Analysis
1	2	3	4	5	6		.08	.18	Mobile - Biota Sample Analysis
1	2	3	4	5	6		.08	.15	Mobile - Gas Waste Sample Analysis
1	2	3	4	5	6		.08	.12	Mobile - Groundwater Sample Analysis
1	2	3	4	5	6		.08	.16	Mobile - Liquid Waste Sample Analysis
1	2	3	4	5	6		.08	.14	Mobile - Soil/Sediment Sample Analysis
1	2	3	4	5	6		.08	.17	Mobile - Solid Waste Sample Analysis
1	2	3	4	5	6		.08	.13	Mobile - Surface Water Sample Analysis
1	2	3	4	5	6		.05	.01	Mobilization
1	2	3	4	5	6		.09	.09	Modeling
			4	5			.30	.08	Modified Sulfur Cement
			4	5			.28	.14	Molten Metal
			4	5			.28	.04	Molten Salt Oxidation
1	2	3	4	5	6		.07	.15	Monitoring Well
			4	5			.26	.43	Nanofiltration
			4		6		.21	.08	Natural attenuation
			4	5			.23	.03	Neutralization
			4	5			.24	.12	Neutralization
			4	5			.31	.01	Nuclear Facility Shutdown and Inspection
1	2	3	4	5			.32	.03	OE Off-Site Destruction Transportation to DOD Facility
			4				.14	.12	OE On-Site Destruction
1	2	3	4	5	6		.33	.08	Off-Site Commercial Disposal Costs, Fees, and Taxes
1	2	3	4	5	6		.33	.06	Off-site DOE Disposal Costs, Fees, and Taxes
1	2	3	4	5	6		.33	.07	Off-Site Other Government Disposal Costs, Fees, and Taxes
			4	5			.26	.30	Oil / Water Separation
1	2	3	4	5	6		.33	.05	On-site Commercial Disposal Costs, Fees, and Taxes
1	2	3	4	5	6		.33	.04	On-site DOE Disposal Costs, Fees, and Taxes
			4	5			.28	.05	Open Burn/Open Detonation

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Assess.	Studies	Design	Cap. Const.	O&M	SLMT	Prog. Mgmt/Infra			ENVIRONMENTAL COST ELEMENT STRUCTURE
1	2	3	4	5	6	8	.06	.02	Outdoor Surveillance and Maintenance
1	2	3	4	5	6		.05	.31	Overhead Electrical Distribution
			4	5			.23	.04	Oxidation / Reduction
			4	5			.23	.02	Oxygen Release Compounds
			4	5			.24	.09	Oxygen Release Compounds
			4	5			.24	.10	Ozonation
			4	5	6		.13	.09	Pads (Tumulus/Retrievable Storage/Other)
1	2	3	4	5	6		.05	.15	Parking Lots
			4	5			.25	.09	Passive/Reactive Treatment Wall
1	2	3	4	5	6		.09	.06	Perform Data Validation
						8	.01	.01	Personnel Resources
			4	5			.21	.09	Phytoremediation
	2	3					.10	.06	Pilot-Scale Test
			4				.15	.05	Piping & Pipeline Removal
			4	5			.28	.06	Plasma
1	2	3	4	5	6		.03	.05	Pollution Control and Mitigation Plan
			4	5			.30	.09	Polyethylene Extrusion
			4	5			.30	.03	Polymer Based Encapsulation
1	2	3	4	5	6	8	.05	.37	Population Relocation
		3	4				.02	.05	Post Design Support
			4	5	6		.03	.16	Post RA/D&D Monitoring Plan
			4				.04	.19	Post-Construction Design Report
			4	5			.29	.03	Pozzolan Process
			4	5			.30	.04	Pozzolan Process (Lime/Portland Cement)
			4	5			.31	.08	Preparation and Decontamination for Area and Equipment
			4	5			.31	.03	Preparation for Dormancy
1	2	3	4	5	6		.09	.01	Prepare and Ship Environmental Samples
	2	3	4	5			.02	.06	Procurement and Warehousing of Equipment and Material
	2	3					.10	.14	Product Qualification, Characterization, and Certification
						8	.01	.03	Program Infrastructure
						8	.01	.02	Program Support
1	2	3	4	5	6		.02	.01	Project Management/Support/Administration
1	2	3	4	5	6		.02	.14	Project Safety and Health
1	2	3					.03	.18	Proposed Plan
1	2	3	4	5	6		.09	.04	Provide Sample Management
			4	5	6		.17	.11	Pumping/Draining/Collection
			4	5			.20	.03	Pumping/Draining/Collection
			4	5			.28	.07	Pyrolysis
			4	5			.20	.02	Radioactive Specific Waste Containment
			4	5			.27	.08	Radiofrequency/Electromagnetic Heating
			4	5			.31	.07	Radiological Inventory Categorization for D&D
1	2	3	4	5	6		.05	.12	Railroad Tracks and Crossing
			4	5	6		.19	.04	RCRA C Cap
			4	5	6		.19	.05	RCRA D Cap
		3					.03	.19	RCRA Permit Preparation/Modification (see also X.02.03.05.01 and 02-03-06)
1	2	3	4	5	6		.08	.19	Real Time - Air/Gas Sample Analysis
1	2	3	4	5	6		.08	.23	Real Time - Gas Waste Sample Analysis
1	2	3	4	5	6		.08	.20	Real Time - Groundwater Sample Analysis
1	2	3	4	5	6		.08	.24	Real Time - Liquid Waste Sample Analysis
1	2	3	4	5	6		.08	.22	Real Time - Soil/Sediment Sample Analysis
1	2	3	4	5	6		.08	.25	Real Time - Solid Waste Sample Analysis

Alphabetical Listing of ECES Level 3 Elements

			Phases				2nd	3rd	Environmental Management
Ph1	Ph2	Ph3	Ph4	Ph5	Ph6	Ph8	Lvl	Lvl	
Assess.	Studies	Design	Cap. Const.	O&M	SLMT	Prog. Mgmt/Infra			ENVIRONMENTAL COST ELEMENT STRUCTURE
1	2	3	4	5	6		.08	.21	Real Time - Surface Water Sample Analysis
1	2	3	4	5	6		.02	.16	Realty Services
	2	3					.04	.17	Record of Decision
	2						.04	.09	Refinement of Alternatives
1	2	3	4	5	6		.02	.17	Regulatory Agency Oversight Staff
1	2	3	4	5	6		.02	.03	Regulatory Interaction
1	2	3	4	5	6		.05	.38	Relocation of Distribution Systems
			4	5	6		.12	.06	Remote Handled Storage
			4	5			.31	.17	Removal of All Other Facilities, or Entire Contaminated Facility
			4				.14	.11	Removal of Chemical Warfare Material (CWM)
			4	5			.31	.06	Removal of Fuel Handling Equipment
			4	5			.31	.15	Removal of Other Material and Equipment from Containment Structure
			4	5			.31	.13	Removal of Pool Linings
			4				.31	.20	Reprocessing Costs
			4	5	6		.05	.34	Restoration of Buildings after D&D
1	2	3	4	5	6		.05	.16	Retaining Wall
			4	5			.28	.09	Retort/Amalgamation
			4	5			.26	.29	Reverse Osmosis
1	2						.04	.04	Risk Assessment Documentation
	2					8	.03	.10	Risk Assessment Plan
			4	5			.22	.07	Rotating Biological Contactors
1	2	3	4	5	6		.03	.03	Sampling and Analysis Plan
1	2	3	4	5	6		.05	.33	Sanitary Sewer
	2						.04	.07	Screen Environmental Alternatives
			4	5	6		.17	.14	Sediment Capping
			4	5			.26	.31	Sedimentation
			4	5	6		.17	.08	Sediments Barriers
			4	5	6		.13	.14	Shallow Land Disposal
			4	5			.11	.02	Sheds & Other Supporting Facilities
			4				.18	.06	Sheet Piling
			4	5			.26	.32	Shredding
1	2	3	4	5	6		.05	.17	Sidewalks
			4	5			.26	.33	Sieving (Size Separation, Screening, Physical Separation)
			4				.14	.10	Sifting
			4	5	6		.13	.16	Silo Disposal
			4	5			.11	.03	Simple Environmental Treatment Facilities (e.g., Equipment Slabs, Utilities)
	2	3					.10	.10	Simulation/Modeling
1	2	3	4	5	6		.07	.03	Site Contaminant Surveys/Radiation Monitoring
			4	5			.31	.05	Site Reconfiguration, Isolating and Securing Structure
1	2	3					.07	.01	Site Reconnaissance
1	2	3	4	5	6		.07	.16	Site-Specific Geographical Information System (GIS)
			4	5			.27	.02	Six-Phase Heating and Extraction
			4	5			.25	.10	Skimming
			4	5			.26	.34	Skimming
			4	5			.30	.06	Sludge Stabilization (Aggregate / Rock / Slag)
			4	5			.22	.08	Slurry Phase Biological Treatment
			4	5	6		.18	.04	Slurry Walls
			4	5			.23	.05	Soil Flushing (Surfactant / Solvent)
			4	5			.25	.11	Soil Flushing (Surfactant / Solvent)
			4	5			.25	.17	Soil Vapor Extraction
			4	5			.26	.18	Soil Vapor Extraction

			Phases				2nd	3rd	Environmental Management
Ph1	Ph2	Ph3	Ph4	Ph5	Ph6	Ph8	Lvl	Lvl	
Assess.	Studies	Design	Cap. Const.	O&M	SLMT	Prog. Mgmt/Infra			ENVIRONMENTAL COST ELEMENT STRUCTURE
			4	5			.26	.35	Soil Washing (Surfactant / Solvent)
1	2	3	4	5	6		.08	.04	Soil/Sediment Sample Analysis
1	2	3	4	5	6		.07	.11	Soil/Sediment Sampling
			4	5			.28	.10	Solar Detoxification/Evaporation
1	2	3	4	5	6		.08	.07	Solid Material/Waste Sampling
			4	5			.25	.12	Solids Dewatering/Drying
			4	5			.26	.36	Solids Dewatering/Drying
			4	5			.24	.11	Solvent Extraction
1	2	3	4	5	6		.05	.63	Special Construction
1	2	3	4	5	6		.05	.60	Specialties
			4	5			.26	.37	Sprinkler Irrigation
1	2	3	4	5	6		.05	.18	Sprinkler System
							.10	.12	Status Review
1	2	3	4	5	6		.05	.24	Steam and Condensate Distribution
			4	5	6		.05	.41	Steam Plant Facility
			4	5			.28	.11	Steam Stripping/Flushing/Reforming
			4	5			.27	.04	Steam/Hot Water Injection Vacuum Extraction
			4	5	6		.12	.04	Storage Facility Front-End - High/Remote Hazard
			4	5	6		.12	.03	Storage Facility Front-End - Low/Moderate Hazard
			4	5	6		.17	.09	Storm Drainage (See X.05.28 for Storm Sewers)
1	2	3	4	5	6		.05	.28	Storm Sewer
			4				.15	.03	Structure Removal
1	2	3	4	5	6		.05	.19	Structures/Culverts
		3	4				.04	.21	Submittals
			4	5	6		.18	.03	Subsurface Drainage/Collection
			4	5			.26	.38	Supercritical Extraction
			4	5			.28	.12	Supercritical Water Oxidation
			4				.14	.07	Surface Sweep (Mag & Flag)
			4				.14	.06	Surface Sweep (Magnetometer)
			4				.14	.05	Surface Sweep (Visual)
1	2	3	4	5	6		.08	.03	Surface Water Sample Analysis
1	2	3	4	5	6		.07	.10	Surface Water Sampling
			4	5			.26	.39	Surfactant Enhanced Recovery
			4	5	6		.05	.42	Switch Gear Building
			4	5			.26	.40	Synthetic Resin Adsorption
			4	5	6		.34	.15	Synthetic Resin Adsorption
			4				.15	.02	Tank Removal
			4	5	6		.13	.08	Tanks
		3					.04	.20	Task Requirement and Criteria
1	2	3					.03	.11	Technical Project Goals and Objectives
	2	3					.10	.13	Technology Transfer
			4	5	6		.17	.05	Terraces and Benches
	2	3					.10	.08	Test Special Tools/Equipment
1	2	3	4	5	6		.05	.57	Thermal and Moisture Protection
			4	5			.27	.01	Thermal Blanket (with Vacuum Extraction)
			4	5			.34	.06	Thermal/Oxidation
			4	5			.28	.13	Thermally Enhanced Vapor Extraction
1	2	3	4	5	6		.03	.08	Transportation and Disposal Plan (Waste Management Plan)
1	2	3	4	5			.32	.14	Transportation by air
1	2	3	4	5			.32	.13	Transportation by barge
1	2	3	4	5			.32	.12	Transportation by rail

Alphabetical Listing of ECES Level 3 Elements

			Phases				2nd	3rd	Environmental Management
Ph1	Ph2	Ph3	Ph4	Ph5	Ph6	Ph8	Lvl	Lvl	
Assess.	Studies	Design	Cap. Const.	O&M	SLMT	Prog. Mgmt/Infra.			ENVIRONMENTAL COST ELEMENT STRUCTURE
1	2	3	4	5			.32	.11	Transportation by truck
1	2	3	4	5			.32	.02	Transportation Device/Equipment
1	2	3	4	5	6		.05	.25	Treatment Plants/Lift Stations
			4	5			.11	.04	Treatment Train Facility (e.g., Rain Covers, Foundation, Utilities)
			4	5			.22	.09	Trickling Filter
			4	5			.34	.03	Turnable Hybrid Plasma Reactor
			4	5			.26	.44	Ultrafiltration/Microfiltration
			4	5			.24	.14	Ultraviolet (UV) Oxidation
			4	5			.24	.13	Ultraviolet (UV) Photolysis
			4	5			.34	.07	Ultraviolet Oxidation
1	2	3	4	5	6		.05	.32	Underground Electrical Distribution
			4	5	6		.13	.07	Underground Mine/Shaft
			4	5	6		.13	.06	Underground Vault
			4	5	6		.19	.03	Upper Vegetative (Topsoil) Layer
			4	5			.25	.14	Vacuum Blasting
		3	4				.04	.14	Value Engineering/Special Studies
			4	5			.30	.07	Vitrification/Molten Glass
			4	5			.34	.08	VOC Recovery and Recycle
			4	5			.19	.02	Waste Containment, Portable (Furnish/Fill)
1	2	3	4	5	6		.03	.21	Waste Site Work Permits
			4	5	6		.12	.09	Waste Storage Fees and Taxes
1	2	3	4	5			.32	.01	Waste Stream Handling/Packaging
			4	5			.11	.12	Waste Treatment Fees and Taxes
1	2	3	4	5	6		.05	.26	Water Distribution
1	2	3	4	5	6		.05	.27	Water Storage Tanks
			4		6		.15	.06	Well Abandonment
1	2	3	4	5	6		.05	.56	Wood & Plastics
1	2	3	4	5	6		.03	.01	Workplan